

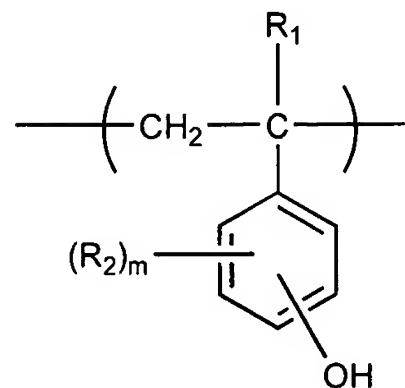
IN THE CLAIMS:

Please amend claims 3-6. Applicant amends the claims so that each claim is properly presented in independent format, as well as to emphasize the control temperature feature of the invention, which distinguishes the present invention from the cited Chen reference.

The claims are herein presented on separate sheets.

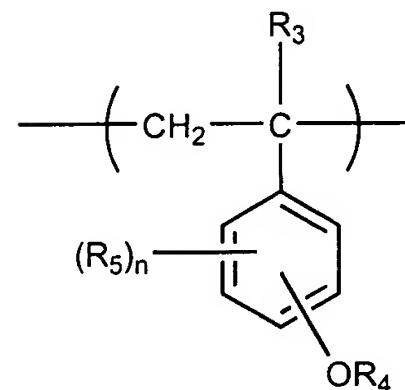
## **CLAIM AMENDMENTS**

1. (Previously Amended) An alkenylphenol copolymer comprising  
Component A containing a repeating unit represented by Formula (I)



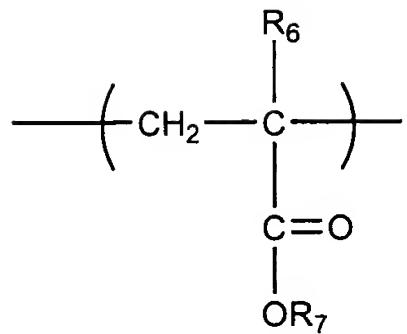
Formula (I)

wherein, R<sub>1</sub> is hydrogen or methyl, R<sub>2</sub> is alkyl having 1 to 5 carbons, m is 0, 1 or 2 and R<sub>2</sub> is the same or different when m is 2 and a repeating unit represented by Formula (II)



Formula (II)

wherein, R<sub>3</sub> is hydrogen or methyl, R<sub>4</sub> is a group to be eliminated and/or decomposed with an acid, R<sub>5</sub> is alkyl having 1 to 5 carbons, n is 0, 1 or 2 and R<sub>5</sub> is the same or different when n is 2 and Component B containing a repeating unit represented by Formula (III)



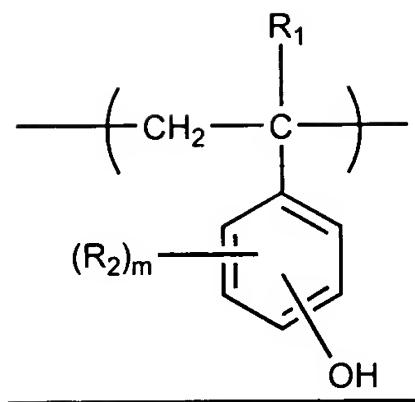
Formula (III)

wherein, R<sub>6</sub> is hydrogen or methyl, and R<sub>7</sub> is a group having a t-butyl group and to be eliminated and/or decomposed with an acid, of which Components A and B are bound in block in the form of A - B, has a ratio Mw/Mn of the weight-average molecular weight Mw to the number-average molecular weight Mn in a range of 1.00 and 1.50, and has no carboxylic acid residues.

2. (Original) An alkenylphenol copolymer according to Claim 1 in which the weight-average molecular weight is 1,000 to 100,000.

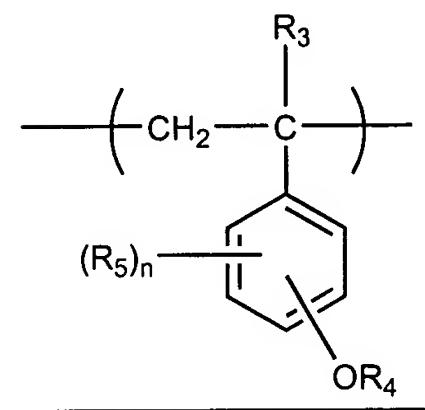
3. (Currently Amended) A process for the preparation of the alkenylphenol copolymer ~~according to Claim 1~~

wherein the alkenylphenol copolymer comprises Component A containing a repeating unit represented by Formula (I)



Formula (I)

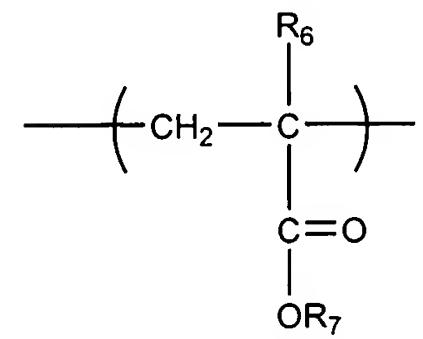
wherein,  $\text{R}_1$  is hydrogen or methyl,  $\text{R}_2$  is alkyl having 1 to 5 carbons,  $m$  is 0, 1 or 2 and  $\text{R}_2$  is the same or different when  $m$  is 2 and a repeating unit represented by Formula (II)



Formula (II)

wherein,  $\text{R}_3$  is hydrogen or methyl,  $\text{R}_4$  is a group to be eliminated and/or decomposed with an acid,  $\text{R}_5$  is alkyl having 1 to 5 carbons,  $n$  is 0, 1 or 2 and  $\text{R}_5$  is the same or different when  $n$  is 2 and Component B containing a repeating unit represented by

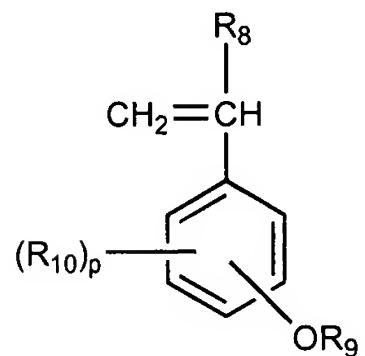
Formula (III)



Formula (III)

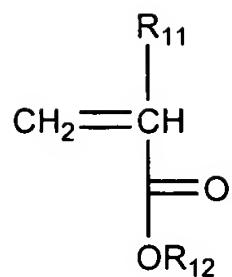
wherein, R<sub>6</sub> is hydrogen or methyl, and R<sub>7</sub> is a group having a t-butyl group and to be eliminated and/or decomposed with an acid, of which Components A and B are bound in block in the form of A - B, has a ratio M<sub>w</sub>/M<sub>n</sub> of the weight-average molecular weight M<sub>w</sub> to the number-average molecular weight M<sub>n</sub> in a range of 1.00 and 1.50, and has no carboxylic acid residues,

in which a compound represented by Formula (IV) whose hydroxyl group of the phenol residue is protected



Formula (IV)

wherein, R<sub>8</sub> is hydrogen or methyl, R<sub>9</sub> is a group to be eliminated and/or decomposed with an acid, R<sub>10</sub> is alkyl having 1 to 5 carbons, p is 0, 1 or 2 and R<sub>10</sub> is the same or different when p is 2 is polymerized, or a compound of Formula (IV) and a vinylaromatic compound are copolymerized, by anionic polymerization using an anionic polymerization initiator as a polymerization initiator, followed by copolymerization with a (meth)acrylic ester represented by Formula (V)

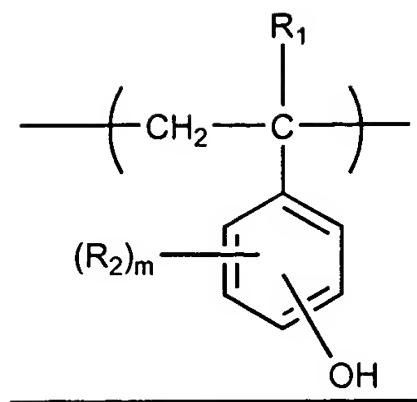


Formula (V)

wherein,  $\text{R}_{11}$  is hydrogen or methyl, and  $\text{R}_{12}$  is a group having a t-butyl group and to be eliminated and/or decomposed with an acid; and the obtained block copolymer is treated with an acid reagent to eliminate and/or decompose only a desired specified amount of the group protecting the phenolic hydroxyl group, said treatment being carried out at a control temperature to eliminate and/or decompose only the desired specified amount of the group protecting the phenolic hydroxyl group.

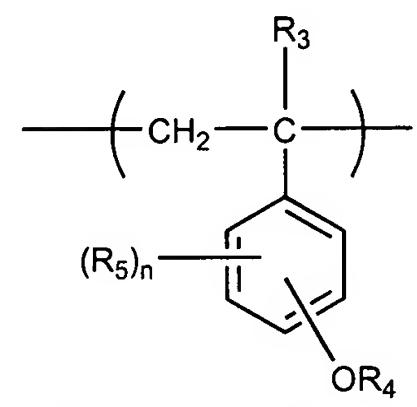
4. (Currently Amended) A process for the preparation of the alkenylphenol copolymer according to Claim 3, in which the step of eliminating and/or decomposing only the desired a specified amount of the group protecting the phenolic hydroxyl group with an acid reagent is carried out at below 60°C.

5. (Currently Amended) A process for the preparation of the alkenylphenol copolymer ~~according to Claim 2~~ wherein the alkenylphenol copolymer comprises Component A containing a repeating unit represented by Formula (I)



Formula (I)

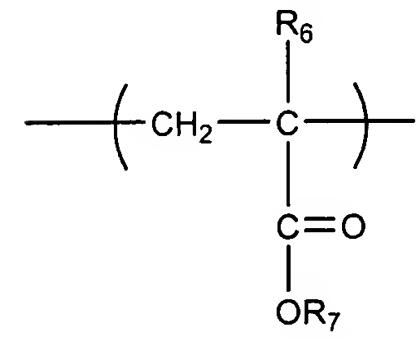
wherein, R<sub>1</sub> is hydrogen or methyl, R<sub>2</sub> is alkyl having 1 to 5 carbons, m is 0, 1 or 2 and R<sub>2</sub> is the same or different when m is 2 and a repeating unit represented by Formula (II)



Formula (II)

wherein, R<sub>3</sub> is hydrogen or methyl, R<sub>4</sub> is a group to be eliminated and/or decomposed with an acid, R<sub>5</sub> is alkyl having 1 to 5 carbons, n is 0, 1 or 2 and R<sub>5</sub> is the same or different when n is 2 and Component B containing a repeating unit represented by

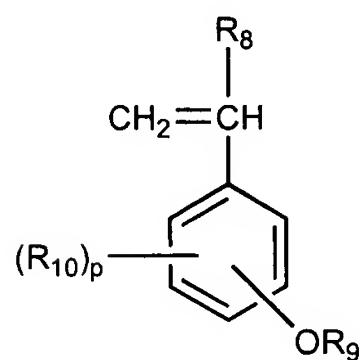
Formula (III)



Formula (III)

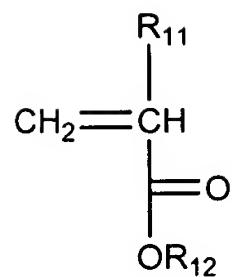
wherein, R<sub>6</sub> is hydrogen or methyl, and R<sub>7</sub> is a group having a t-butyl group and to be eliminated and/or decomposed with an acid, of which Components A and B are bound in block in the form of A - B, has a ratio M<sub>w</sub>/M<sub>n</sub> of the weight-average molecular weight M<sub>w</sub> to the number-average molecular weight M<sub>n</sub> in a range of 1.00 and 1.50, and has no carboxylic acid residues and in which the weight-average molecular weight is 1,000 to 100,000,

in which a compound represented by Formula (IV) whose hydroxyl group of the phenol residue is protected



Formula (IV)

wherein, R<sub>8</sub> is hydrogen or methyl, R<sub>9</sub> is a group to be eliminated and/or decomposed with an acid, R<sub>10</sub> is alkyl having 1 to 5 carbons, p is 0, 1 or 2 and R<sub>10</sub> is the same or different when p is 2 is polymerized, or a compound of Formula (IV) and a vinylaromatic compound are copolymerized, by anionic polymerization using an anionic polymerization initiator as a polymerization initiator, followed by copolymerization with a (meth)acrylic ester represented by Formula (V)



Formula (V)

wherein,  $\text{R}_{11}$  is hydrogen or methyl, and  $\text{R}_{12}$  is a group having a t-butyl group and to be eliminated and/or decomposed with an acid; and the obtained block copolymer is treated with an acid reagent to eliminate and/or decompose only a desired specified amount of the group protecting the phenolic hydroxyl group, said treatment being carried out at a control temperature to eliminate and/or decompose only the desired specified amount of the group protecting the phenolic hydroxyl group.

6. (Currently Added) A process for the preparation of the alkenylphenol copolymer according to Claim 5, in which the step of eliminating and/or decomposing only desired a specified amount of the group protecting the phenolic hydroxyl group with an acid reagent is carried out at below 60°C.